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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/404,182 09/24/99 ADAPATHYA

R RP9-99-111

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EXAMINER

ABDULSELAM, A

ART UNIT	PAPER NUMBER
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2674

DATE MAILED:

09/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

cc: TBM
JK

Office Action Summary

Application No.
09/404,182

Applicant(s)
Ravi S. Adapathya

Examiner
Abbas Abdulsalam

Group Art Unit
2674



☒ Responsive to communication(s) filed on Jul 12, 2001

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-51 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-51 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2674

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 08/12/01 have been fully considered but they are not persuasive.

Applicant argues that Adams does not teach or suggest "a thumb button extending from the thumb sidewall and located above the thumb channel so that the thumb of the user will be free of contact with the thumb button when the thumb of the user is in the thumb channel". However, as will be seen in the rejection, Adams discloses an inner surface (84) with a concave portion having keys (28 30) mounted on the surface. The keys, 28 and 30, are defined by the contact surface 29 and 31 respectively. See column 6, lines 49-58. Also, the upper key 30 is located above the user's thumb (108); see Fig 6.

Applicant argues that Adams' input device has a top surface not arcuate enough, and further argues that Adams does not teach the desired left, top, bottom, and side views. However, as will be seen in the rejection below, Adams teaches the thumb (108) as it relates to the side of the device which is a concave inner space. Moreover, Adams teaches that one can have various size and dimensions of the device by scaling up or down its configuration. See column 5, lines 1-5, column 6, lines 51-58, and column 4, lines 14-23, 50-54.

Art Unit: 2674

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Gillick teaches about a computer pointing devices such as mice, and Adams teaches about a computer input device. See Column 1, lines 5-10, and column 1, line 5 respectively.

Claim Rejections 35 U.S.C. 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillick (USPN 5530455) in view of Adams (USPN 6031518).

In regards to claims 1, 17, 29, 38, and 47, Gillick teaches a computer mouse with finger buttons including a side button (25), and a roller (24), see Fig 1. Gillick also teaches that the position of a trackball can be extended in any desirable dimension, see column 1, line 45 through 55. Gillick does not teach about a thumb ball support, and a concave thumb channel. However,

Art Unit: 2674

Adams teaches about a computer mouse with a concave shape of the contact surfaces (29,31), and a user's thumb, see Fig 6, and Column 7, line 15 through 20. Adams also shows the top and the side views of the concave mouse in terms of radial measurement of a sphere, see Column 10, line 40 through 50, and Fig 9, (98). Furthermore, Adams teaches about the assignment of an area needed for right hand thumb, Column 6 line 60 though Column 7 line 20.

Regarding claims 5, 10-11, 20, 24-25, 30, 34-35, 42, 44-45, 48, and 50-51, Adams teaches about the curve with respect to the side view, and top view of the mouse, see Figure 5, and Figure 4 respectively. Adam teaches that the slope of the curve varies from the element (88) to a curve dimensions (102) and (100), and the variance of the slope is turn is equivalent to the variance of angles. Regarding claims 2-4, 8-9, 14-16, 18-19, 23, 27-28, 32-33, 37, 39-40, and 41, Adams teaches the top view, the side view, the back elevation view, and the front elevation view in Fig 4, 5, 9, and 10 respectively. Adams states that the device is contiguous in design and is related to its curve structure, see column 12, line 65, and Column 14 line 10 through 15.

Regarding claims 6-7, 12-13, 21-22, 26, 31, 36, 43, 46, and 49, Adams teaches that the periphery of the outer surface (86) in relation to the inner surface (84), and mentioned that the peripheral edge of the upper surface is shaped as round along the junction of top surface, see Column 4, line 15 through 25 and Column 5, line 30 through 40.

Additionally, Adam teaches an inner surface (84) with a concave portion having keys (28 30) mounted on the surface. The keys , 28 and 30, are defined by the contact surface 29 and 31 respectively. See column 6, lines 49-58. Also, the upper key 30 is located above the user's thumb

Art Unit: 2674

(108); see Fig 6. Adams teaches the thumb as it relates to the side of the device which is a concave inner space. Moreover, Adams teaches that one can have various size and dimensions of the device by scaling up and down its configuration. See column 5, lines 1-5, column 6, lines 51-58, column 4, lines 14-23, and 50-54.

Therefore it would have been obvious to one having skill in the art at the time of the invention was made to modify Gillick's device to include Adams' concave shape contact surface for a user's thumb. One would have been motivated in view of the suggestion in Adams that concave shape is the same as the desired concave channel, and the thumb support area; and the use of concave shape mouse helps comfortably support a wide range of hand sizes as taught by Adams.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2674

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2674

Any enquiry concerning this communication or earlier communications from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe** can be reached on **(703)305-4709**.

Any response to this action should be mailed to :

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for informal or draft communications, please label

“PROPOSED” or “DRAFT”


Hand-delivered responses should be brought to Crystal park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 Customer service Office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

Art Unit 2674


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600